Title (en)

  Auto locking chuck

Title (de)

  Selbstverriegelndes Futter

Title (fr)

  Mandrin auto-bloquant

Publication

  EP 2087958 A1 20090812 (EN)

Application

  EP 09250182 A 20090123

Priority

- US 6393308 P 20080207
- US 20636108 A 20080908

Abstract (en)

  A chuck that automatically tightens or loosens the jaws of the chuck in response to rotation of a power tool drive shaft or gearbox shaft is disclosed. The chuck has a body, a plurality of jaws and an adjustment ring that is threadably engaged with the jaws. The chuck body and the adjustment ring are each selectively rotationally coupled to the gearbox shaft of the power tool. The chuck body is also selectively rotationally coupled to the power tool housing. A mode selector is provided for placing the chuck in either drill mode or auto-lock mode. In drill mode, the chuck body is rotationally coupled to the gearbox shaft and is rotatable relative to the power tool housing, thereby allowing the chuck body to be rotationally driven by the gearbox shaft. In auto-lock mode, the adjustment ring is rotationally coupled to the gearbox shaft and the chuck body is rotationally coupled to the power tool housing to allow the adjustment ring to be rotationally driven by the gearbox shaft relative to the chuck body so as to tighten or loosen the jaws.

IPC 8 full level

  B23B 31/12 (2006.01)

CPC (source: EP US)

  B23B 31/123 (2013.01 - EP US); **B23B 31/1238** (2013.01 - EP US); B23B 2231/06 (2013.01 - EP US); Y10T 279/17632 (2015.01 - EP US); Y10T 279/17941 (2015.01 - EP US)

Citation (search report)

- [XA] US 2006188350 A1 20060824 - GEHRET ROBERT S [US], et al
- [A] US 6179301 B1 20010130 - STEADINGS STEPHEN W [US], et al

Cited by

  CN106077729A

Designated contracting state (EPC)

  AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

  AL BA RS

DOCDB simple family (publication)

  EP 2087958 A1 20090812; **EP 2087958 B1 20130417**; AU 2009200186 A1 20090827; BR PI0900299 A2 20090929; CN 101508030 A 20090819; CN 101508030 B 20110223; US 2009200758 A1 20090813

DOCDB simple family (application)

  EP 09250182 A 20090123; AU 2009200186 A 20090119; BR PI0900299 A 20090205; CN 200910008630 A 20090206; US 20636108 A 20080908